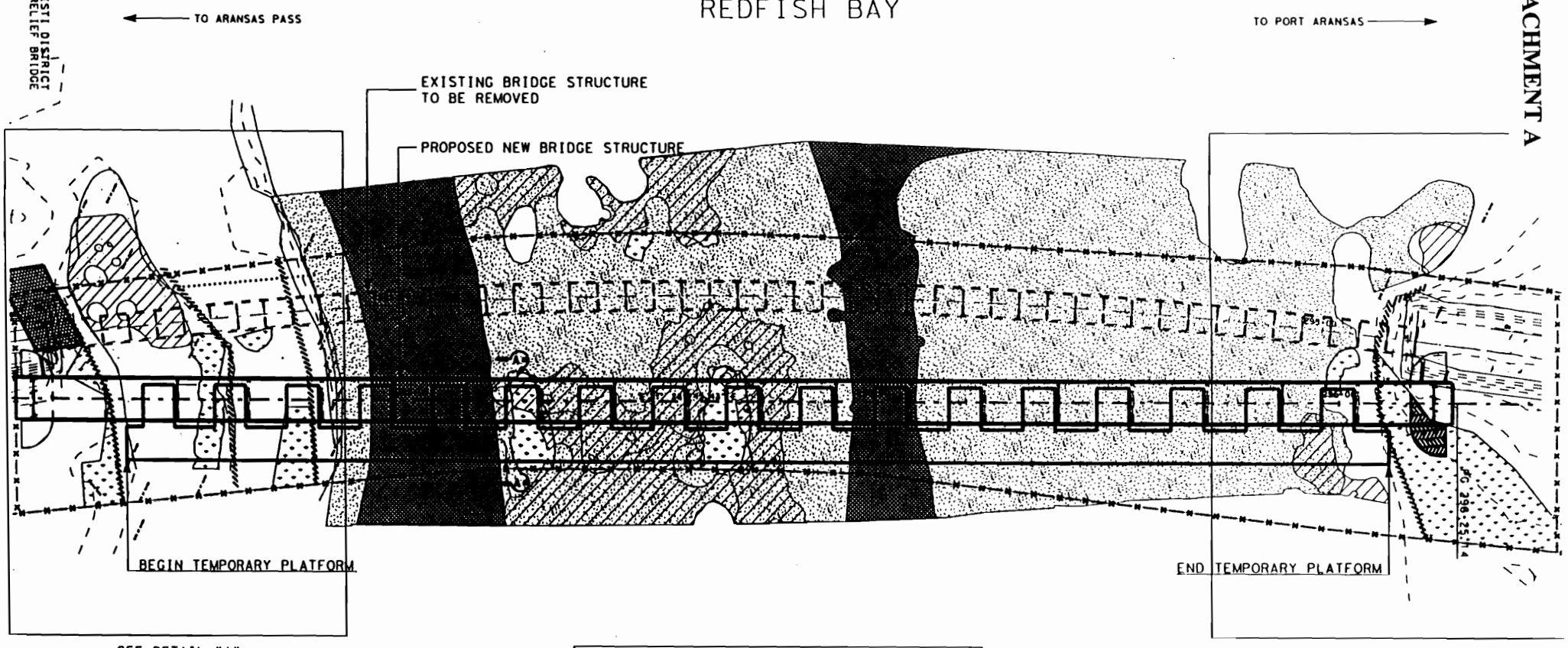
Location of Mitiga
24093
Texas Department of Transportation
Redfish Bay
Nueces County, Texas
Attachment A: Page 1 of 5

APPLICANT: TXDOT CORPUS CHRISTI DISTRICT
PROJECT: SH 361 REDFISH BAY RELIEF BRIDGE
TRACKING#: 200501478
DATE: JANUARY, 2006

ATTACHMENT A – MITIGATION PLAN

ATTACHMENT A



WETLANDS & WATERS OF THE US IN STUDY AREA	
OPEN WATER (CHANNEL)	0.80
TOTAL WETLANDS	1.61
JURISDICTIONAL WETLANDS (ABOVE MHW LINE)	0.67
MANGROVES (ABOVE & BELOW MHW LINE)	0.43
SPARTINA (ABOVE & BELOW MHW LINE)	0.51
OYSTERS	2.42
TOTAL SEAGRASS	7.73
SHOALGRASS	7.34
CLOVERGRASS	0.39

LEGEND

- SEAGRASS (SHOALGRASS, CLOVERGRASS)
- WETLANDS (JURISDICTIONAL WETLANDS, MANGROVES, SPARTINA)
- OYSTERS
- OPEN WATER (CHANNEL)
- AREA OF PERMANENT IMPACT
- PROPOSED WETLAND MITIGATION
- STUDY AREA
- MEAN HIGH WATER (MHW) LINE

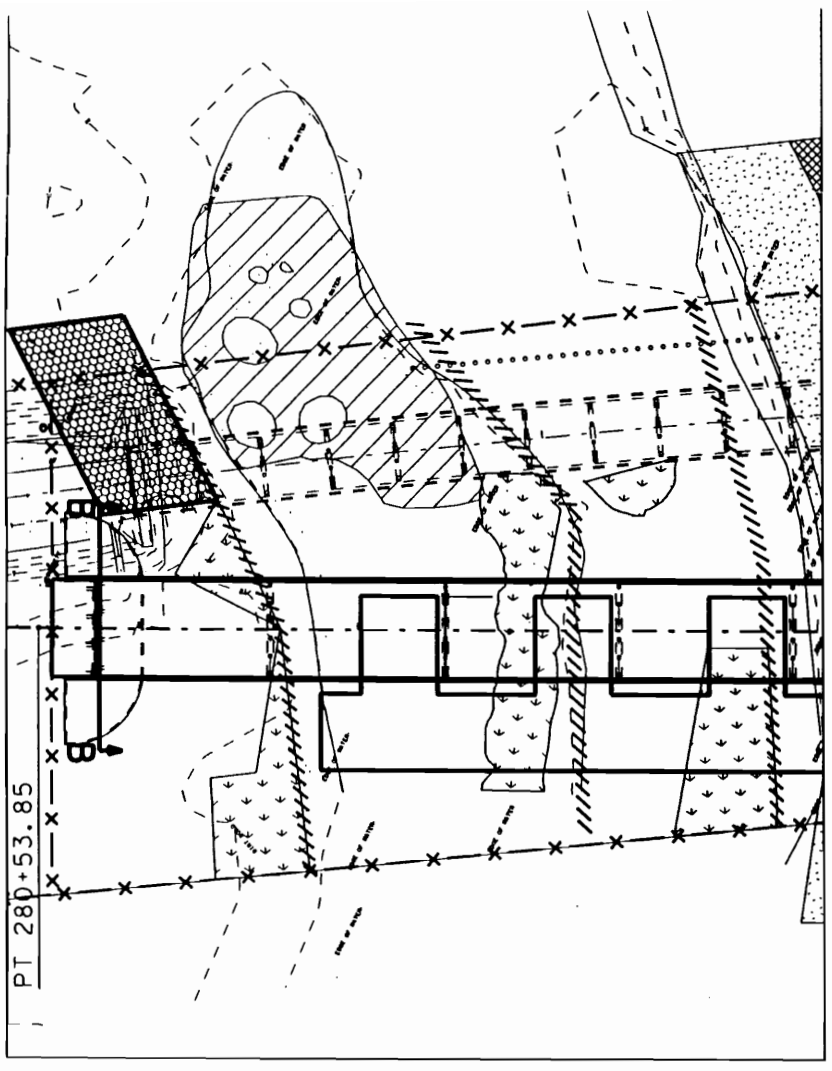
PROPOSED BRIDGE AND TEMPORARY WORK PLATFORM LAYOUT

SH361 REDFISH BAY RELIEF BRIDGE
CSJ: 2263-02-079

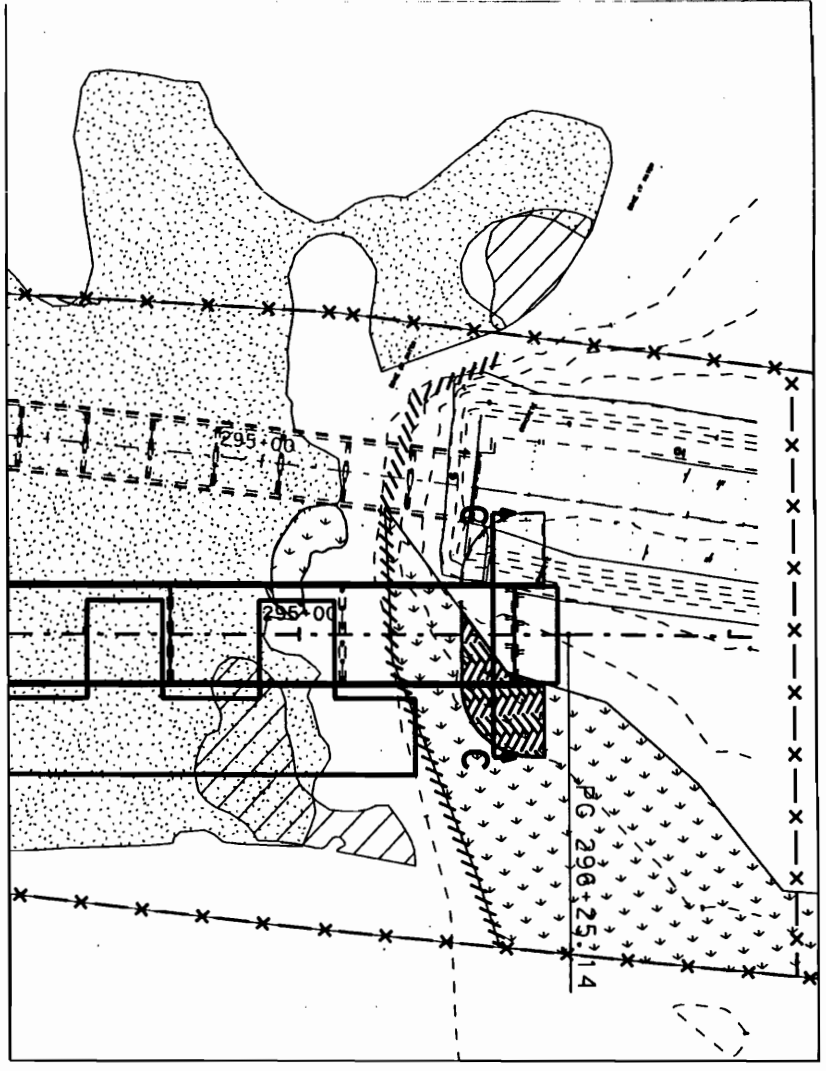
24093

ICANT: TXDOT CORPUS CHRISTI DISTRICT
ECT: SH 361 REDFISH BAY RELIEF BRIDGE
KING#: 200501478
: JANUARY, 2006

ATTACHMENT A



DETAIL "A" (NORTH SIDE)



DETAIL "B" (SOUTH SIDE)

ATTACHMENT A – MITIGATION PLAN

LEGEND

- SEAGRASS (SHOALGRASS, CLOVERGRASS)
- WETLANDS (JURISDICTIONAL WETLANDS, MANGROVES, SPARTINA)
- OYSTERS
- OPEN WATER (CHANNEL)
- AREA OF PERMANENT IMPACT
- PROPOSED WETLAND MITIGATION
- STUDY AREA
- MEAN HIGH WATER (MHW) LINE

AREA OF PERMANENT IMPACT=
0.03 ACRE OF JURISDICTIONAL WETLANDS

PROPOSED WETLAND MITIGATION=
0.10 ACRE OF JURISDICTIONAL WETLANDS

PROPOSED BRIDGE AND TEMPORARY WORK PLATFORM LAYOUT

SH361 REDFISH BAY RELIEF BRIDGE
CSJ: 2263-02-079

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Area of Permanent Impact and Mitigation Area
24093
Texas Department of Transportation
Redfish Bay
Nueces County, Texas
Attachment A: Page 2 of 5

24093

APPLICANT: TXDOT CORPUS CHRISTI DISTRICT
PROJECT: SH 361 REDFISH BAY RELIEF BRIDGE
TRACKING#: 200501478
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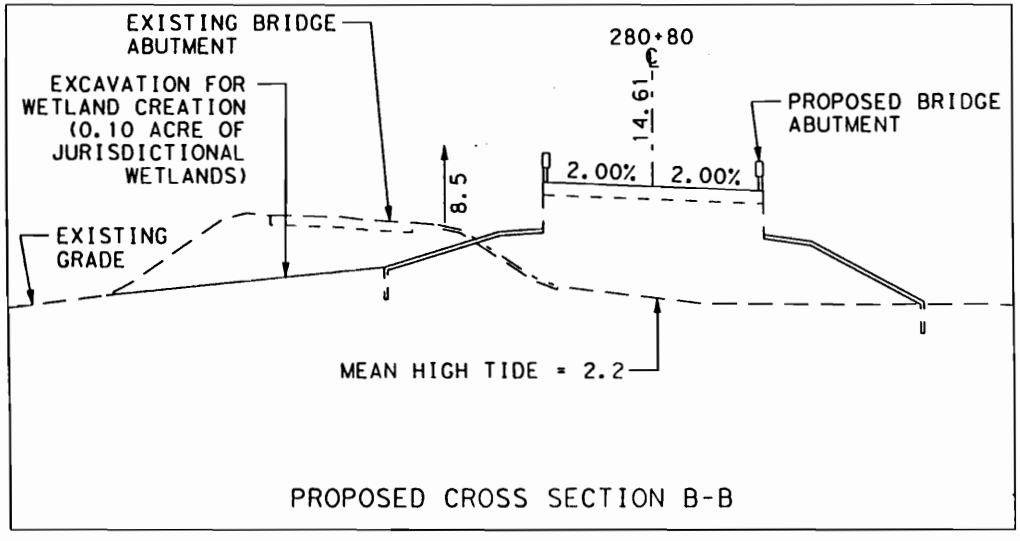

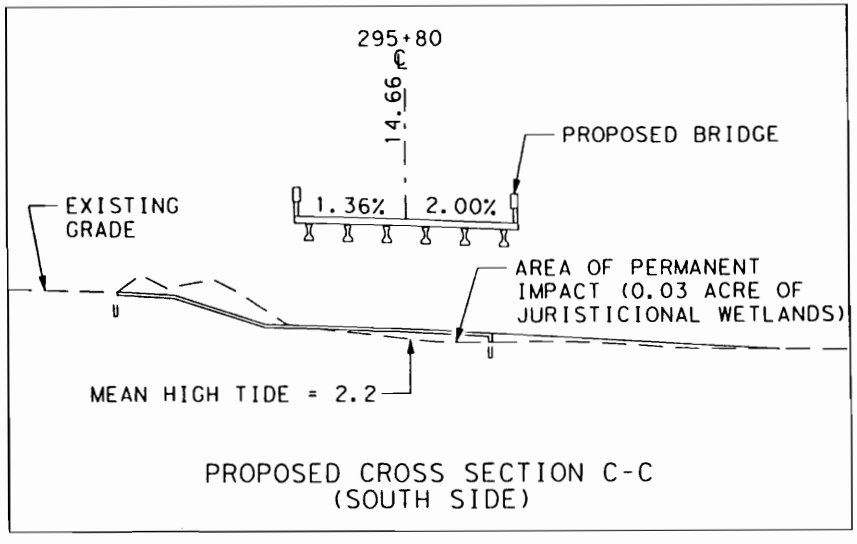

ATTACHMENT A – MITIGATION PLAN

24093

Cross Section View of Impact Area and Mitigation Area
24093
Texas Department of Transportation
Redfish Bay
Nueces County, Texas
Attachment A: Page 3 of 5

PROPOSED CROSS SECTION OF PROPOSED WETLAND MITIGATION AND AREA OF PERMANENT IMPACT

SH361 REDFISH BAY RELIEF BRIDGE
CSJ: 2263-02-079

ATTACHMENT A – MITIGATION PLAN

Wetland Mitigation and Monitoring

Permanent impacts to 0.03 acre of jurisdictional wetlands are proposed to be mitigated at the existing west bridge abutment on the north side (Page 10 of 15). The existing abutment and upland areas above the mean high water line would be excavated to an appropriate elevation to encourage re-vegetation of jurisdictional wetlands. The mitigation site (50-ft x 90-ft) would establish an area of 0.10 acre of functional new wetland vegetation at Redfish Bay. The goal of the mitigation site is to achieve 70% hydrophytic cover or wetland vegetation consisting of sea oxeye daisy, little bluestem, seashore saltgrass, saltmeadow cordgrass, or bigleaf sumpweed within one year following the completion of the bridge construction. This area would be surveyed the first full growing season after the year following the bridge replacement. The survey of the mitigation site would include photo documentation of percent cover and identification of dominant species. If 70% percent cover is not achieved or any other jurisdictional habitat areas have not recovered from the construction impacts, TxDOT will consider these resources to be permanently impacted. TxDOT would be responsible to coordinate with the USACE and perform the appropriate corrective action and compensation for these impacts.

B. Pre-construction Survey

The new bridge structure on SH 361 that connects Aransas Pass (Station 280 + 53.85) to Port Aransas (Station 295 + 25.14) will be built prior to removal of the existing bridge (Station 280 + 96.73 to Station 295 + 82.14). During construction, erosion control structures, including rock filter dams type I and sediment control fences, will be placed near the downstream perimeter at the bridge abutments and approach roadways on the north and south sides.

A pre-construction survey to establish baseline environmental conditions would be conducted prior to start of construction. The limits of the pre-construction survey would include (1) underneath the existing bridge; and (2) the proposed area of the temporary platform and new bridge structure. The pre-construction survey would collect data points that extend beyond the existing bridge, proposed temporary platform, and new bridge structure into areas undisturbed from construction. The existing bridge would be surveyed 30-ft to the north and 30-ft to the south, and the proposed temporary platform and new bridge structure would be surveyed 40-ft to the north and 60-ft to the south. The methods for the pre-construction survey are as follows:

1. *Existing Bridge Structure*
   The pre-construction survey for the existing bridge would begin at Station 280 + 80 and end at Station 296 + 80. Fifteen transects would be placed at every 100-ft set perpendicular to the centerline of the existing structure. Each transect would extend 30-ft to the north and south from the centerline to transverse the existing bridge. Data will be recorded at 10-ft intervals along each transect for a total of 150 data points. The following information will be collected at each 10-ft interval: X, Y, and Z coordinates and species presence or absence for wetlands, mangroves, seagrasses, and oysters.

2. *Temporary Platform and New Bridge Structure*
   The pre-construction survey for the temporary platform and new bridge structure would begin at Station 280 + 96 and end at Station 295 + 96. Sixteen transects would be placed at every 100-ft set perpendicular to the centerline of the proposed new bridge structure. Each transect would extend 40-ft to the north and 60-ft to the south from the centerline of the new bridge structure. Data will be recorded at 10-ft intervals along each transect for a total of 160 data points. The following information will be collected at each 10-ft interval: X, Y, and Z coordinates and species presence or absence for wetlands, mangroves, seagrasses, and oysters.

C. Post-construction Monitoring

Post-construction monitoring surveys would be conducted to evaluate the recovery of affected resources from the bridge construction, and would consist of one survey per year for two consecutive years after the bridge replacement. The first survey would occur after the first full growing season. Surveys would be conducted during the summer from June 1 to July 31, and all data would be collected as described in the pre-construction survey. Following each survey, an electronic copy of the data and hard copy of the report will be provided to the USACE, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and Texas Parks and Wildlife Department.